

**Maryland Historical Trust**

Maryland Inventory of Historic Properties number:

Name:

Maryland Inventory of Historic Properties number: WM: 18-46.  
Name: MD 117 over Buck Lodge Branch / 15018

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridge received the following determination of eligibility.

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**MARYLAND HISTORICAL TRUST**

Eligibility Recommended X

Eligibility Not Recommended

Criteria:    A    B    C    D Considerations:    A    B    C    D    E    F    G    None

**Comments:**

Reviewer, OPS: Anne E. Bruder

Date: 3 April 2001

Reviewer, NR Program: Peter E. Kurtze

Date: 3 April 2001

MARYLAND INVENTORY OF HISTORIC BRIDGES  
HISTORIC BRIDGE INVENTORY  
MARYLAND STATE HIGHWAY ADMINISTRATION/  
MARYLAND HISTORICAL TRUST

MHT No. M:18-46

SHA Bridge No. 15018 Bridge name MD 117 over Bucklodge Branch

**LOCATION:**

Street/Road name and number [facility carried] MD 117 (Bucklodge Road)

City/town Bucklodge Vicinity X

County Montgomery

This bridge projects over: Road        Railway        Water X Land       

Ownership: State X County        Municipal        Other       

**HISTORIC STATUS:**

Is the bridge located within a designated historic district? Yes        No X

National Register-listed district        National Register-determined-eligible district       

Locally-designated district        Other       

Name of district       

**BRIDGE TYPE:**

Timber Bridge       :

Beam Bridge        Truss -Covered        Trestle        Timber-And-Concrete       

Stone Arch Bridge       

Metal Truss Bridge       

Movable Bridge       :

Swing       

Vertical Lift       

Bascule Single Leaf       

Retractable       

Bascule Multiple Leaf       

Pontoon       

Metal Girder       :

Rolled Girder       

Plate Girder       

Rolled Girder Concrete Encased       

Plate Girder Concrete Encased       

Metal Suspension       

Metal Arch       

Metal Cantilever       

Concrete X:

Concrete Arch        Concrete Slab X Concrete Beam        Rigid Frame       

Other        Type Name

**DESCRIPTION:**

Setting: Urban \_\_\_\_\_ Small town \_\_\_\_\_ Rural X

**Describe Setting:** Bridge No. 15018 carries MD 117 (Bucklodge Road) over Bucklodge Branch in Montgomery County. MD 117 runs east-west, while Bucklodge Branch flows from the north to the south. The bridge is located in a rural section of Montgomery County and is surrounded by farmland.

**Describe Superstructure and Substructure:**

Bridge No. 15018 over Bucklodge Branch in Montgomery County is a two span concrete slab bridge built in 1932. Both clear span lengths are 14 feet with a clear roadway width of 27 feet. The bridge is currently not posted. No field investigation or recent plans have been executed for this structure by the State Highway Administration, therefore information regarding repairs or condition is not available.

The superstructure, consisting of the roadway, slab and parapets, is in good condition. The open concrete parapets have end blocks, an articulated coping and a pierced railing design with a 7 open space to 1 expansion joint ratio. W-beam guardrails were added to the roadway at an unknown date and attach to the parapets at the end blocks. The substructure is in fair condition. All substructure components feature molded chamfering; the wingwalls are flared. The pier nose at the north end is severely spalled and scoured. The south embankment is eroding into the stream channel. An authorization to proceed was issued in February of 1994 for the placement of rip rap scour protection on the eroded bank. As of February 1995 no work has been completed.

**Discuss Major Alterations:**

W-beam guardrails were added to the roadway at an unknown date. They attach to the bridge at the parapet end blocks.

**HISTORY:**

**WHEN was the bridge built:** 1932

**This date is:** Actual X Estimated \_\_\_\_\_

**Source of date:** Plaque \_\_\_\_\_ Design plans \_\_\_\_\_ County bridge files/inspection form X

**Other (specify)** \_\_\_\_\_

**WHY was the bridge built?**

By 1930, Maryland's primary and secondary roads and bridges had become inadequate to the huge freight trucks and volume of passenger cars in use.

**WHO was the designer?**

Unknown

**WHO was the builder?**

Unknown

**WHY was the bridge altered?**

To extend the life of the bridge

**Was this bridge built as part of an organized bridge-building campaign?**

Yes, post World War I improvements to primary and secondary roads.

**SURVEYOR/HISTORIAN ANALYSIS:**

**This bridge may have National Register significance for its association with:**

- A - Events \_\_\_\_\_ B- Person \_\_\_\_\_  
 C- Engineering/architectural character \_\_\_\_\_

**Was the bridge constructed in response to significant events in Maryland or local history?**

Reinforced concrete slab bridges are a twentieth century structure type, easily adapted to the need for expedient engineering solutions. Reinforced concrete technology developed rapidly in the early twentieth century with early recognition of the potential for standardized design. The first U.S. attempt to standardize concrete design specifications came in 1903-1904 with the formation of the Joint Committee on Concrete and Reinforced Concrete of the American Society of Civil Engineers.

Maryland's roads and bridge improvement programs mirrored economic cycles. The first road improvement of the State Roads Commission was a 7 year program, starting with the Commissions establishment in 1908 and ending in 1915. Due to World War I, the period from 1916-1920 was one of relative inactivity; only roads of first priority were built. Truck traffic resulting from war related factories and military installations generated new, heavy traffic unanticipated by the builders of the early road system. From 1920-1929, numerous highway improvements occurred in response to the increase in Maryland motor vehicles from 103,000 in 1920 to 320,000 in 1929, with emphasis on the secondary system of feeder roads which moved traffic from the primary roads built before World War I. After World War I, Maryland's bridge system also was appraised as too narrow and structurally inadequate for the increasing traffic, with plans for an expanded bridge program to be handled by the Bridge Division, set up in 1920. In 1920 under Chapter 508 of the Acts of 1920 the State issued a bond of \$3,000,000.00 for road construction; the primary purpose of these monies was to meet the state obligations involving the construction of rural post roads. The secondary purpose of these monies was to fund (with an equal sum from the counties) the building of lateral roads. the number of hard surfaced roads on the state system grew from 2000 in 1920 to 3200 in 1930. By 1930, Maryland's primary system had been inadequate to the huge freight trucks and volume of passenger cars in use, with major improvements occurring in the late 1930's. Most improvements to local roads waited until the years after World War II.

With a diverse topographical domain encompassing numerous small and large crossings, Maryland engineers quickly recognized the need for expedient design and construction.

In the early years, there was a need to replace the numerous single lane timber bridges. Walter Wilson Crosby, Chief Engineer stated in 1906, "The general plan has been to replace these [wood bridges] with pipe culverts or concrete bridges and thus forever do away with the further expense of the maintenance of expensive and dangerous wooden structures". Within a few years, readily constructed standardized bridges of concrete were being built throughout the state.

The creation of standard plans and a description of their use was first announced in the 1912-15 Reports of the State Roads Commission whereby bridges spanning up to 36 feet were to use standardized designs.

Published on a single sheet, the 1912 Standard Plans included those structures that were amenable to such an approach: slab spans, (deck) girder spans, box culverts, box bridges, abutments, and piers (State Roads Commission 1912). Slab spans, with lengths of 6 to 16 feet in two foot increments, featured a solid parapet that was integrated into the slab, with a roadway of 22 feet.

In the Report for the years 1916-1919, a revision of the standard plans was noted:

During the four years covered by this report, it has been found necessary to revise our standard plans for culverts and bridges, to take care of the increased tonnage which they have been forced to carry. Army cantonments...increased their operations several hundred per cent, and the brunt of the enormous truck traffic resulting therefrom, was borne by the State Roads of Maryland. In addition to these war activities, freight motor lines from Baltimore to Washington, Philadelphia, New York, and various points throughout Maryland, and the weight of many of these trucks when loaded, was in excess of the loads for which our early bridges were designed (State Roads Commission 1920:56).

Published on separate sheets, the new standard plans (State Roads Commission 1919) for slab bridges reveal that the major changes was an increase in roadway width from 22 feet to 24 feet and a redesign of the reinforcement. The slab spans continued to feature solid parapets integrated into the span. The range of span lengths remained 6 to 16 feet, but the next year (1920) witnessed the issue of a supplemental plan for a 20 foot long slab span (State Roads Commission 1920).

In 1930, the roadway width for all standard plan bridges was increased to 27 feet in order to accommodate the increasing demands of automobile and truck traffic (State Roads Commission 1930). The range of span lengths remained the same, but there were some changes designed to increase the load bearing capacities. The reinforcing bars increased in thickness. Visually, the 1930 design can be distinguished from its predecessors by the pierced concrete railing that was introduced at this time.

**When the bridge was built and/or given a major alteration, did it have a significant impact on the growth and development of the area?**

Although built during the post World War I construction phase, this bridge did not greatly effect the area surrounding it. The structure did not increase settlement or industry.

**Is the bridge located in an area which may be eligible for historic designation and would the bridge add to or detract from the historic/visual character of the potential district?**

No, this bridge is not located in an area which is eligible for historic designation.

**Is the bridge a significant example of its type?**

No, this structure is not a significant example of its type.

**Does the bridge retain integrity of important elements described in Context Addendum?**

No, this structure does not retains its integrity because of its deteriorated state.

**Is the bridge a significant example of the work of a manufacturer, designer, and/or engineer?**

No, this bridge is not a significant example of the work of the manufacturer.

**Should the bridge be given further study before an evaluation of its significance is made?**

No, this structure should not be given further study. Although it reflects the state's post war construction needs of an expanded secondary roads system, its current condition has placed its integrity in doubt.

M:18-46

**BIBLIOGRAPHY:**

County inspection/bridge files \_\_\_\_\_ SHA inspection/bridge files X  
Other (list): \_\_\_\_\_

**SURVEYOR:**

Date bridge recorded 8/95

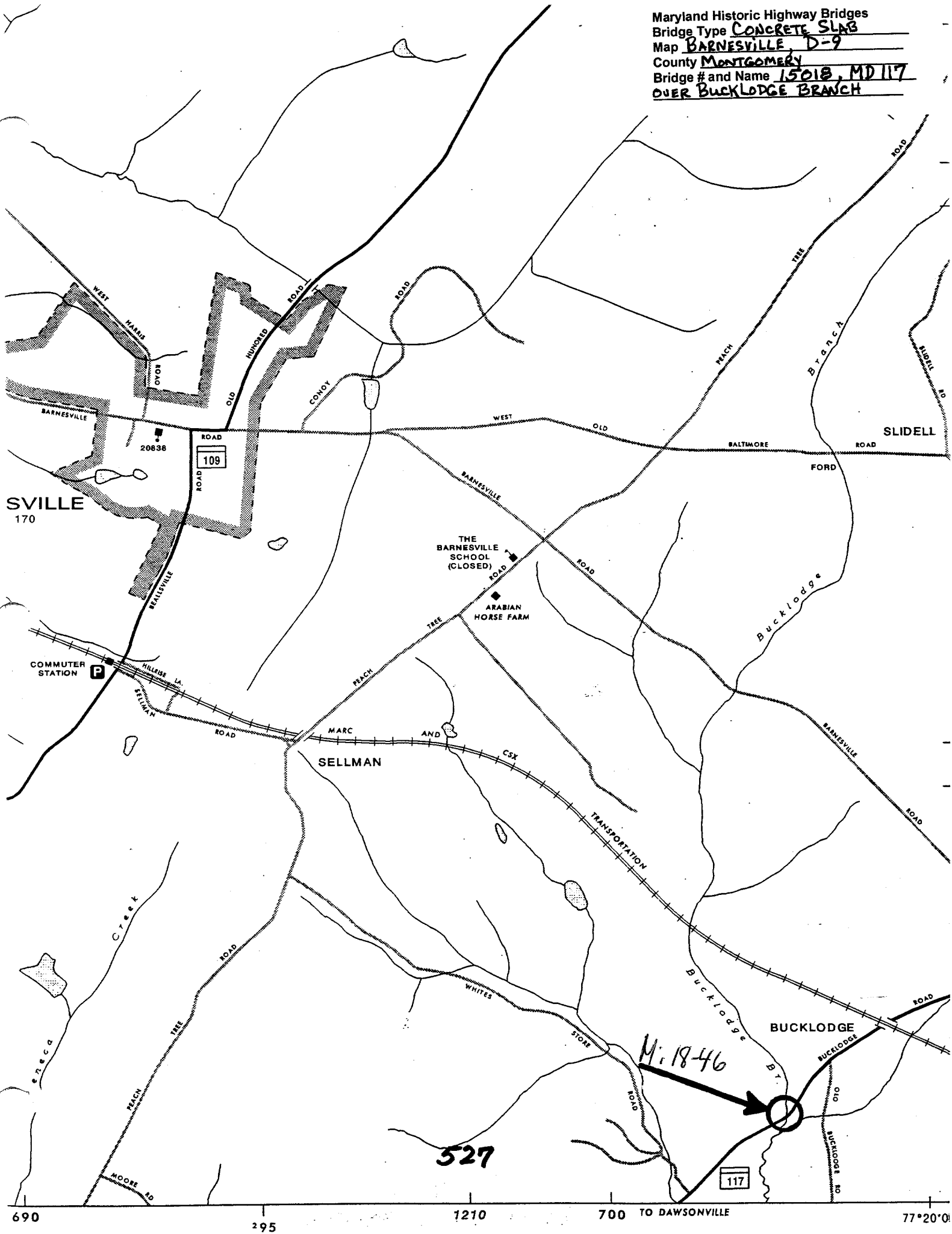
Name of surveyor Leo Hirrell

Organization/Address P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Suite 412, Baltimore, MD 21204

Phone number (410) 296-1635

FAX number (410) 296-1670

Maryland Historic Highway Bridges  
Bridge Type CONCRETE SLAB  
Map BARNESVILLE D-9  
County MONTGOMERY  
Bridge # and Name 15018, MD 117  
OVER BUCKLODGE BRANCH







Inventory # M:18-46

Name 1508-MD17 OVER BUCKLODGE BRANCH

County/State MONTGOMERY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description APPROACH SOUTH

Number <sup>1</sup>~~34~~ of <sup>4</sup>~~36~~



Inventory # M:18-46

Name 19018-MD117 OVER BUCKLODGE BRANCH

County/State MONTGOMERY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description ELEVATION WEST

Number <sup>2</sup> ~~30~~ of <sup>4</sup> ~~36~~



Inventory # M:18-46

Name 15018 - MD 117 OVER BUCKLODGE BRANCH

County/State MONTGOMERY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHR

Description APPROACH NORTH

Number <sup>3</sup>21 of <sup>4</sup>26



Inventory # M:18-46

Name 15018 - MD 117 OVER BUCKLODGE BRANCH

County/State MONTGOMERY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description ELEVATION EAST

Number <sup>4</sup> 22 of <sup>4</sup> 30

**INDIVIDUAL PROPERTY/DISTRICT  
MARYLAND HISTORICAL TRUST  
INTERNAL NR-ELIGIBILITY REVIEW FORM**

Property/District Name: MD 117: Bridge No. 15018 over Bucklodge Branch Survey Number: M: 18-46

Project: 2380215-B01800 Agency: SHA

Site visit by MHT Staff: XX no     yes Name                                  Date                         

Eligibility recommended   X   Eligibility not recommended       

Criteria:   A   B  XX C   D Considerations:   A   B   C   D   E   F   G   None

Justification for decision: (Use continuation sheet if necessary and attach map)

Bridge NO. 15018 over Bucklodge Branch, Montgomery County, MD is a two-span concrete slab structure built in 1932, and has been determined eligible for the National Register of Historic Places by the Interagency Historic Bridge Committee. The bridge is a reinforced concrete structure with a pigeon-hole parapet, a pier, wingwalls and abutments, and appears to be in excellent condition based on the photographs and visit by SHA Architectural Historian Jill Dowling. Based on the information provided, the Office of Preservation Services concurs with the eligibility determination based on Criterion C for the National Register. The bridge does not appear to qualify for inclusion in the National Register under criteria A, B or D.

Documentation on the property/district is presented in: Project Review & Compliance Files

Prepared by: SHA Jill Dowling

Anne E. Bruder  
Reviewer, Office of Preservation Services

February 13, 1998  
Date

NR program concurrence: X yes    no    not applicable

John E. Kuntz  
Reviewer, NR program

2/19/98  
Date

*Jmg*



Survey No. M:18-46

## MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

### I. Geographic Region:

- ☐ Eastern Shore (all Eastern Shore counties, and Cecil)  
☐ Western Shore (Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)  
☒ Piedmont (Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)  
☐ Western Maryland (Allegany, Garrett and Washington)

### II. Chronological/Developmental Periods:

- ☐ Paleo-Indian 10000-7500 B.C.  
☐ Early Archaic 7500-6000 B.C.  
☐ Middle Archaic 6000-4000 B.C.  
☐ Late Archaic 4000-2000 B.C.  
☐ Early Woodland 2000-500 B.C.  
☐ Middle Woodland 500 B.C. - A.D. 900  
☐ Late Woodland/Archaic A.D. 900-1600  
☐ Contact and Settlement A.D. 1570-1750  
☐ Rural Agrarian Intensification A.D. 1680-1815  
☐ Agricultural-Industrial Transition A.D. 1815-1870  
☒ Industrial/Urban Dominance A.D. 1870-1930  
☒ Modern Period A.D. 1930-Present  
☐ Unknown Period ( ☐ prehistoric ☐ historic)

### III. Prehistoric Period Themes:

- ☐ Subsistence  
☐ Settlement  
  
☐ Political  
☐ Demographic  
☐ Religion  
☐ Technology  
☐ Environmental Adaptation

### IV. Historic Period Themes:

- ☐ Agriculture  
☒ Architecture, Landscape Architecture, and Community Planning  
☐ Economic (Commercial and Industrial)  
☐ Government/Law  
☐ Military  
☐ Religion  
☐ Social/Educational/Cultural  
☒ Transportation

### V. Resource Type:

Category: Structure  
Historic Environment: Rural  
Historic Function(s) and Use(s): Transportation -- stream crossing

Known Design Source: \_\_\_\_\_



M:18-46

BRIDGE NO 1501800  
MD 117 OVER BUCKLODGE BRANCH



•WEST  
ELEVATION



•EAST  
ELEVATION